

December 1, 1959

Dr. Howard H. Pattee  
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Dear Howard:

Thank you for your note of November 14th.

I was interested in seeing how you sized-up the strategic problems. In a somewhat different form I think we had reached much the same assessment of the whole problem. I certainly agree with you that we should not try to develop any one pattern of instrumentation to the exclusion of the others. In fact there is every reason to try to tie the spectroscope directly to the microscope if only by a few filters. In fact one of the strongest justifications for the microscope was that there would inevitably be a substantial amount of parallel development work on the large scale survey of the planetary surface. I think we would put a little more weight on "cells" as against vegetation on the basis that we would really most like to get some cytochemical information on any life we get a view of. The most important single question we would like to ask is probably, if there is life, whether it has a basis in the same DNA which underlies terrestrial life.

We can certainly await your return to plunge even more deeply into the problem; meanwhile I have started some efforts at raising a little bit of money to pay for the instrumentation. At least I would like to get some practical experience in my own laboratory with a television microscope, preferably a UV system, before going any further with any fancier developments. It happens that UV microscopy would be extremely useful for some of the work we are doing in bacterial genetics at the present time so there will be little wasted.

I will probably bombard you again at some time and hope to keep you in an appropriately excited state. Please don't hesitate to pick the brains of our Swedish colleagues if they show signs of having any ideas appropriate to the problem.

I'm planning to go to Nice in January for an International Symposium on Space Science but I doubt if there will be an opportunity

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to get any closer to Scandinavia on this occasion. You will doubtless be meeting Kornberg before very long so there will be at least one more souvenir of Stanford.

Yours sincerely,

Joshua Lederberg  
Professor of Genetics